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| INFORMATION DISCLOSURE STATEMENT | | | | | | ATTY, DOCKET NO. SERIAL NO. 1999U26,US-CON3 10/635,864 | | | | | |
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| *EXAMINER INITIAL | | DOCUMENT NUMBER | E | ATE | | NAME | CLASS | SUBCLASS | FILING IF APPRO | | |
| | AA | US 2001-0029232 | 10/2 | | | et al. | | | | | |
| | AB | US 2001-0031695 US 2002-0103071 | 10/2 | 001 1/2002 | Oska | day et al. | | | | | |
| | AC AD | US 2002-0103071 | | 8/2002 | | son et al. | | | | | |
| | AE | US 2002-0111443 | | 5/2002 | Szul | | | | | | |
| | AF | US 2002-0119890 | 08/2 | 9/2002 | Wenz | cel et al. | | | | | |
| | AG | US 4057565 | | 8/1977 | Manz | | | | ļ | | |
| | AH | US 4748221 | | 1/1988 | | mb et al. | ļ | ļ | | | |
| | Al | US 4789359 US 4789714 | | 6/1988 6/1988 | Sawa | ga with et al. | | | | | |
| | AJ AK | US 4923833 | | 8/1990 | | et al | | | † | | |
| | AL | US 5283278 | | 1/1994 | Daire | | İ | | | | |
| | AM | US 5290745 | 03/0 | 1/1994 | | nsen et al. | | | | | |
| | AN | US 5317036 | | 1/1994 | | , III et al. | | | | | |
| | AO | US 5318935 | | 7/1994 | | h et al. | | | ļ | | |
| | AP | US 5426243 | | 0/1995 9/1996 | Leco | n et al. | | | | | |
| | AQ AR | US 5506184 US 5608019 | | 9/1996 4/1997 | | ıvu et al. | | | | | |
| | AS | US 5622906 | | 2/1997 | Pettij | | | | | | |
| | AT | US 5637660 | | 0/1997 | Nagy | | | | | | |
| | | | FORE | IGN PAT | ENT I | OCUMENT | 3 | | | | |
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| | AU | DE 2332890 | | 10/15/1 | 006 | EP | | | | | |
| | AV | EP 0197310 | | 1 | | EP | | | | | |
| | AW | EP 0241560 | | 10/21/1 | | | | | | | |
| | AX | EP 0593083 | | 04/20/1 | | EP | | | | | |
| | AY | EP 0668295 | | 06/1998 | | EP | | | | | |
| | AZ. | EP 0751142 | | 01/02/1 | | Eb | | | | | |
| | BA | EP 0803520 | | 12/16/1 | | EP | | | | | |
| | BB | EP 0816372 A2 | | 01/07/1 | | EP | | | L | | |
| | OTHE | ER DISCLOSURES (I | | | | | | | | | |
| | ВС | BAUMAN et al., Syn [((t-Bu-d ₀)N-o-C ₆ H ₁); Am. Chem. Soc. 1997. | O]* ({ | NON }2") as | and Zi | rconium Compl iving Polymeri: | exes 'That Co zation of 1-H | ontain the Triden exenc by Activa | tate Dismido ted [NON]Zr | Ligand, Me ₂₁ ./. | |
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| *EXAMINER INITIAL | | DOCUMENT NUMBER | | DATE | | NAME | CLASS | SUBCLASS | IF APPR | DATE OPRIATI | | |
| | BD | US 5643846 | | 1/1997 | Reddy | | | | | | | |
| | BE | US 5672669 US 5674796 | | 0/1997 7/1997 | Lee et | rman et al. | | | | | | |
| | BG | US 5693727 | | 2/1997 | Goode | | * | | | | | |
| | BH | US 5705578 | | 5/1998 | Peifer | | | | | | | |
| | BI | US 5707913 | | 3/1998 | | nd et al. | | | | | | |
| | BJ | US 5726115 | | 0/1998 | Horton | | | 1 | | ******* | | |
| | BK BL | US 5723399 US 5747620 | | 3/1998 5/1998 | | noto et al. | | | | | | |
| | BM | US 5756727 | | 5/1998 | Beller | et al. | | | | | | |
| | BN | US 5763549 | | 9/1998 | Elder | | | | | | | |
| | ВО | US 5798427 | | 5/1998 | Foster Marks | | | | - | | | |
| | BP BQ | US 5854166 US 5889128 | | 9/1998 0/1999 | | ck et al. | | | | | | |
| | BR | US 5895771 | | 0/1999 | | n et al. | | | | | | |
| | BS | US 5955555 | | 1/1999 | Benne | | | | | | | |
| | BT | US 6090739 | | 8/2000 | Riedel | | | | | | | |
| | BU | US 6180731 US 6187940 | | | | Rohde et al. Chen et al. | | | | | | |
| | BW | US 6191239 | | 0/2001 | Ford e | | | | | | | |
| | BX | US 6194520 | 02/2 | 7/2001 | Cheru | vu eta I. | | | | | | |
| | | | FOR | EIGN PATI | ENT D | OCUMENTS | 3 | | | | | |
| | | DOCUMENT | | PUBL. | | | | | TRANSLATIO | | | |
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| | BY | EP 0816384 | | 01/07/199 | 8 | EP | | | | | | |
| | BZ | EP 0874005 | | 10/28/199 | 8 | EP | | | 1 | 1 | | |
| | CA | EP 0890575 | | 01/13/199 | 9 | EP | | | | | | |
| | СВ | EP 0893454 A1 | _ | 01/27/199 | 9 | EP | | | | | | |
| | CC | EP0279863 | | 10/14/199 | 2 | EP | | | | | | |
| | CD | JP 07-118317 | | 05/09/199 | 5 | JP | | | | | | |
| | CE | JP 09-278823 | | 10/28/199 | | JP | | | | | | |
| | CF | JP 10-007712 | | 01/13/199 | | JP | | | | | | |
| | OTHE | ER DISCLOSURES | • | | | | | | | | | |
| | CG | BEI et al., Synthesis Incorporating 8-Qui | , Struct nolinola | ures, Bondin nto Ligands, 6 | g, and E Organo | thylene Reacti metallics 1997, | vity of Grou 16, 3282-3 | p 4 Metal Alkyl 302 | Complexes | | | |
| EXAMINER | | /William Che | ung/ | | D/ | DATE CONSIDERED 06/11/2009 | | | | | | |

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line though citation if not in conformance and not considered. Include copy of this form with next comment to applicant

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| *EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | | NAME | CLASS | SUBCLASS | | | |
| | CH | US 6211111 | 04/03/2001 | Chen | et al. | | | | | |
| | Cl | US 6214760 | 04/10/2001 | Chen | | | | | | |
| | CJ | US 6225421 | 05/01/2001 | | el et al. | | | | | |
| | CK | US 6225424 | 05/01/2001 | | kawa et al. | | | | | |
| | CM | US 6255419 | 07/03/2001 | Imuta | | | | | | |
| | CN | US 6265505 | 07/24/2001 | McCo | onville et al. | | | | | |
| | CO | US 6271323 | 08/07/2001 | | lay et al. | | | | | |
| | CP | US 6271325 | 08/07/2001 | | onville et al. | | | <u> </u> | | |
| | CQ | US6274684 | 08/14/2001 | | lay et al. | | | | | |
| | CR | US 6291614 | 09/18/2001 | Chen | | | | ļ | | |
| | CS | US 6294495 | 09/25/2001 | Matsi | | | | ļ | | |
| | CT | US 6300438 | 10/09/2001 | | onville | | | ļ | | |
| | CU | US 6300439 | 10/09/2001 | | onville | | | | | |
| | CV | US 6303807 | 10/16/2001 | | and et al. | | | ļ | | |
| | CW | US 6316549 | 11/13/2001 | | et al. | | | ļ | | |
| | CX | US 6333389 | 12/25/2001 | | ker et al. | | | ļ | | |
| | CY | US 6380328 | 04/30/2002 | | onville et al. | | | ļ | | |
| | CZ | US 6399722 | 06/04/2002 | Szul | | | | | | |
| | DΛ | US 6403181 | 06/11/2002 FOREIGN PA | Barry | | | | <u> </u> | | |
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| | 1 | DOCUMENT | PUBL. | | | | | TRANSLATIO | | N |
| | | NUMBER DATE | | | COUNTRY | CLASS | | YES | N | 10 |
| | DB | JP 10-298216 | 11/10/ | 1998 | JP | | | 1 | | |
| | DC | JP 10-238216 | 12/199 | | JP | _ | | | | |
| | DD | JP 10-45904 | 02/17/ | | JP | | | | | |
| | DE | JP 11-049813 | 02/23/ | | JP | | | 1 | _ | |
| | DF | JP 2-78663 | 03/19/ | | JP | + | | | | |
| | DG | JP 8-277307 | 10/26/ | | JP | + | | | | |
| | DH | JP 8-81415 | 07/31/ | | JP | | - | l | | |
| | DI | RU 2126424 | 02/20/ | | RU | + | | | _ | |
| | | ER DISCLOSURES (1 | | | ,1 | nt Pages of | Publication, E | itc.) | | |
| | | | | | | | | | | |
| | DJ | Böhm, Ludwig L., et al. "High-Density Polyethylene Pipe Resins" Advanc Materials 4 no. 3, pages 234-238 (1992) | | | | | | | | |
| EXAMINER | · | | | | ATE CONSIDE | RED | | | | |
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| | DK | US 6417304 | 07/09 | /2002 | McCo | nville et al. | | | | | | | |
| | DL | US 6534604 | 03/08 | /2003 | Loved | ay et al. | | | | | | | |
| | DM | US 6656866 | 12/02 | | | el et al. | | | | | | | |
| | DN | US 6689847 | 02/10 | | | on et al. | | | | | | | |
| | DO | US 6696537 | 02/24 | | | nville et al. | | | | | | | |
| | DP | US 6703338 | 03/09 | | | mp et al. | | | | | | | |
| | DQ | US 6841631 | 01/11 | | | ay et al. | | | | | | | |
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| | DU | WO 92/12162 | | 07/23/1 | | PCT | | | | | | | |
| | DV | WO 94/21700 | | 09/29/1 | | PCT | | | | | | | |
| | DW | WO 96/08498 | | 03/21/1 | | PCT | | | | | | | |
| | DX | WO 97/02294 | | 01/23/1 | | PCT | | | | | | | |
| | DY | WO 97/42197 | | 11/13/1 | | PCT | | | | | | | |
| | DZ | WO 97/45434 | | 12/04/1 | | PCT | | | | | | | |
| | EA | WO 97/46599 | | 12/11/1 | 997 | PCT | | | <u> </u> | | | | |
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| | EB | Clark, Cloke, Hit | cheock e ligano | , Love a | nd Wa 995) p | inwright "T p. 333-340 | itanium (I | V) complexe | s incorpo | rating | | | |
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| | | Diamide Ligand | "(1 | 995) pp | . 25-30 |) | | | | | | | |
| | ED | | Di Silvestro, Sozzani and Terragni "Polymerization of propene with enantiomorphic site catalysts, 1 (1996) pp. 3209-3228 | | | | | | | | | | |
| EE Eskelinen, Mari, et al., "Effect of P Ethylene with Dicyclopentadienlyz Polym. J. Vol. 32 No. 3 pages 331- | | | | | | Polymerization Temperature on the Polymerization of zirconiumdichloride/Methylalumoxane Catalyst" Eur335 (1996) | | | | | | | |
| | EF | Fuhrmann, Brenner, Arndt and Kempe "Octahedral Group 4 Metal Complexes' Contain Amine, Amido, and Aminopyridinato Ligands: Synthesis, Structure, an Application in a-Olefin Oligo- and Polymerization" (1996) pp. 6742-6745 | | | | | | | | at | | | |
| EXAMINER | | /William Che | eung/ | | DA | DATE CONSIDERED 06/11/2009 | | | | | | | |
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| | EH | WO 97/48735 | 12/24/19 | | PCT | | | | | | |
| | El | WO 97/48736 | 12/24/19 | | PCT | | | | - | | |
| | EJ EK | WO 98/27124 WO 98/30569 | 06/25/19 | | PCT PCT | | | | + | | |
| | EL | WO 98/30612 | 07/16/19 | | PCT | | | - | - | | |
| | EM | WO 98/34964 | 08/13/19 | | PCT | - | | | - | | |
| | EN | WO 98/37106 | 01/27/19 | | PCT | + | | | 1 | | |
| | EO | WO 98/37109 | 08/27/19 | | PCT | | | | 1 | | |
| | EP | WO 98/46651 | 10/22/19 | | PCT | | | | | | |
| | EQ | WO 98/55467 | 12/10/19 | 998 | PCT | | | | | | |
| | ER | WO 99/01460 | 08/27/19 | | PCT | | | | | | |
| | ES | WO 99/02472 | 01/21/1 | | PCT | | | | | | |
| | ET | WO 99/02536 | 01/21/19 | | PCT | | | | | | |
| | EU | WO 99/12981 | 03/18/19 | | PCT | | ļ | | | | |
| | EV | WO 99/46303 | 09/16/19 | | PCT | | | | ļ | | |
| | EW | WO 99/46304 | 09/16/1 | | PCT | | | . ` | <u> </u> | | |
| | | R DISCLOSURES (Includi | | | | | | | | | |
| | EX | Guerin, Del Vecchio ai zirconium: observation | | | | | | nplexes o | of | | |
| | EY | Guerin, McConville an and Structure of Titania | | | | | | exes: Syn | thesis | | |
| | EZ | Guerin, McConville an Zirconium: Electron D | | | | | | | | | |
| | FΛ | Guerin, McConville Vi Alkyl Complexes Bear | ttal and `ing Ancil | rap "S Iary P | Synthesis, Str Pyridine Diam | ucture, an ide Ligan | d Reactivity (ds" (1998) p | of Zircon p. 5172-5 | ium 177 | | |
| | FB | Harkonen et al., "Synth tetranuclear butterfly of | esis, cry: luster | stal sti " (199 | ructure and cl 95) pp. 205-20 | naracteriza)8 | ation of the h | eterometa | ıllic | | |
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| | FD | WO 97/19959 | 06/05/199 | | | PCT | | | | | | |
| | FE | WO 97/44371 | 11/27/199 | | | PCT | | | | | | |
| | FF FG | WO 98/34961 WO 99/03899 | 08/13/199 | | | PCT PCT | | | | | | |
| *************************************** | 10 | WO 99/03099 | 01120/177 | | | 101 | | | - | | | |
| | FH | Horton, de With, va Based on a Trident 2672-2674 | | | | | | | | | | |
| | F1 | Kang, Kap Ku, et a Diaminde Complet Part A: Polymer Cl | xes, Contai | ning | Trai | nsition Meta | l (Ti, Zr)' | ' Journal of P | | | | |
| | FJ | L. Liang et al., J. A | m. Chem. S | Soc., | vol. | 121, no. 24 | , pp. 5797 | -5798 (1999) |) | | | |
| | FK | Munoz-Escalona et Polyethylene, Meta Ziegler-Natta and M | lorganic Ca | talys | sts fo | or Synthesis | and Poly | | | | | |
| | FL | Rcpo, Klinga, Pieti Dichloride: Crysta of Ethylene" (1997 | 1 Structure | and (| | | | | | | | |
| | FM | Scollard and McCo Complexes of Titar | nville "Liv nium" (1990 | ng P 6) pp | olyr 100 | nerization o 08-10009 | f a-Olefin | s by Chelatin | g Diamid | le | | |
| | FN | Wang, Friedrich, ye Catalysts for Ethyle | | | | | | Neutral Nicko | el (II)-Bas | ed | | |
| | FO | Chen et al., "Cocate Activation Processe 1434 | | | | | | | |), 1391- | | |
| EXAMINER | Activation Processes, and Structure-Activity Relationships, Chem. Rev. (2000), 100, 1 1434 | | | | | | | | | | | |
| *EXAMINER: | | l if citation considered, who will be a considered of the consider | | | | | | | though cita | tion if no | | |